

THE PORT AUTHORITY
OF NY & NJ

ORIGINAL, SIGNED & SEALED BY
N.Y. P.E. (OR R.A.)

Joseph R. Loring
& Associates, P.C.
consulting engineers
One Pennsylvania Plaza
New York, New York 10001-2298
Tel. (212) 363-7400, Fax (212) 363-7382

THE OFFICE OF
DAVID
ELLIOT
LEBOWITZ
P.C.
ARCHITECTS & PLANNERS
10 WEST 40TH STREET NEW YORK, NY 10018
Tel. (212) 693-1000 Fax (212) 693-1001

LESLIE E. ROBERTSON
ASSOCIATES, P.L.L.C.
CONSULTING STRUCTURAL ENGINEERS
24 EAST 40TH STREET
NEW YORK, NY 10018
Tel. (212) 693-1000 Fax (212) 693-1001

I HEREBY CERTIFY THAT THIS IS A TRUE AND CORRECT
COPY OF ONE OF THE CONTRACT DRAWINGS COPY
SUBMITTED AS PART OF CONTRACT NO. WTC-945-071
IN THE FORM IN WHICH SAID DRAWINGS EXISTED AT
THE TIME THE SAID CONTRACT WAS EXECUTED BY
THE PARTIES.
DATE 11/10/97 *Subhan A. Akbar*
DATE 11/10/98 *P.K. [Signature]*
ENGINEER OF DESIGN

11/17/97 ISSUED FOR NO.

No. Date Revision Approved
Engineering Department
Design Divisions

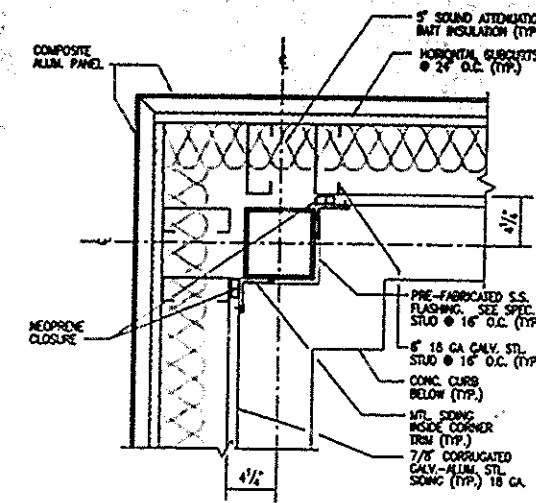
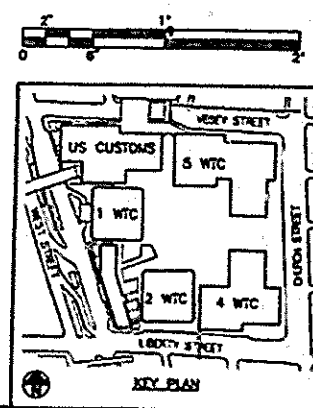
The
World
Trade
Center

STANDBY POWER
5 WORLD TRADE CENTER

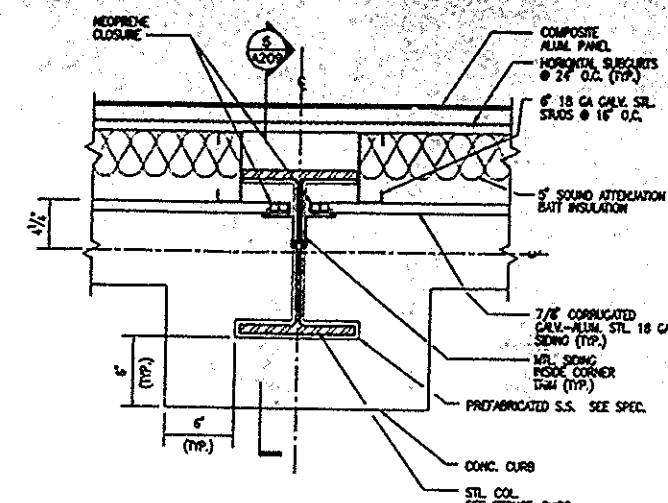
ARCHITECTURAL
BULKHEAD PLAN
DETAILS

This drawing subject to conditions in contract.
All inventions, ideas, designs and methods
herein are reserved to Port Authority and
may not be used without its written consent.

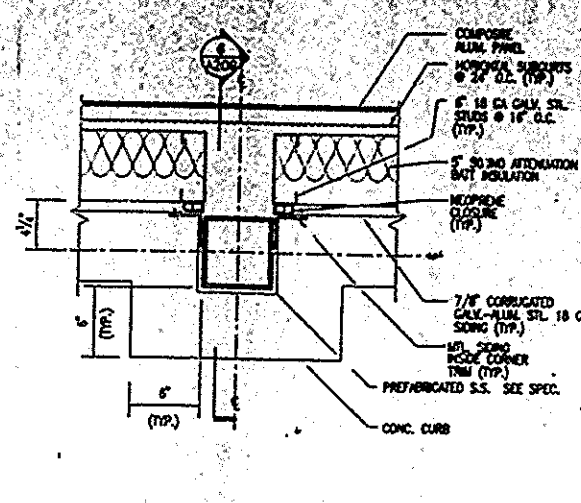
C.B. JAK
Designed by Drawn by JPLA JAB/ML
Date 11/10/97 Scale AS SHOWN
Contract Number Drawing Number
WTC-945-071 A2-08



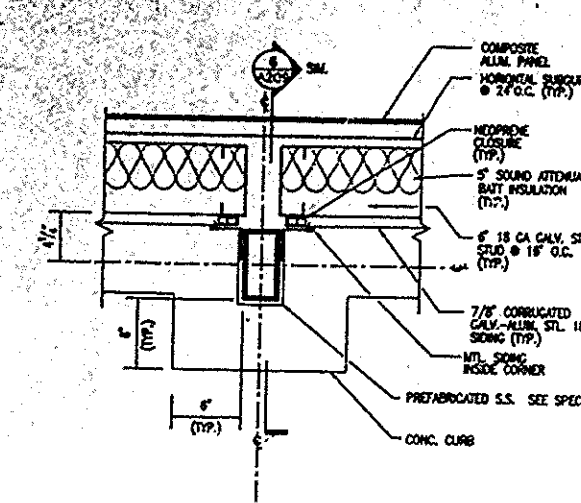
1 TYPICAL BULKHEAD EXTERIOR
WALL CORNER DETAIL



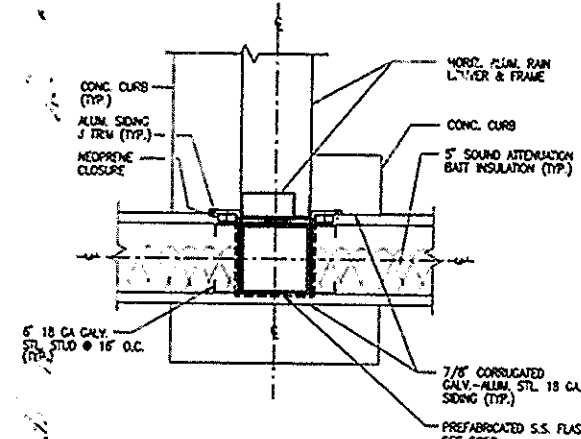
2 TYPICAL EXTERIOR WALL
H COLUMN DETAIL



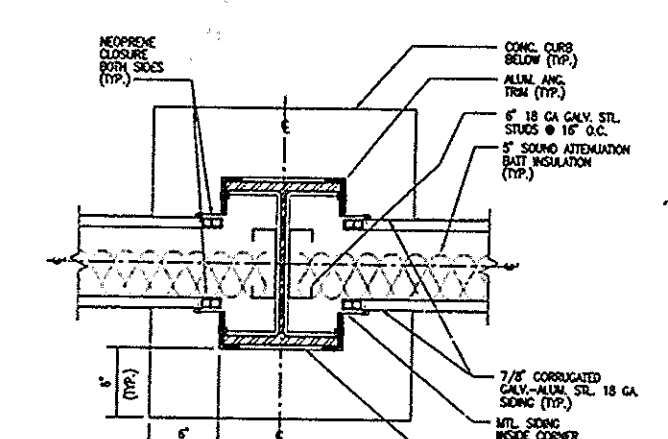
3 TYPICAL EXTERIOR WALL
6"x6" TUBE COLUMN DETAIL



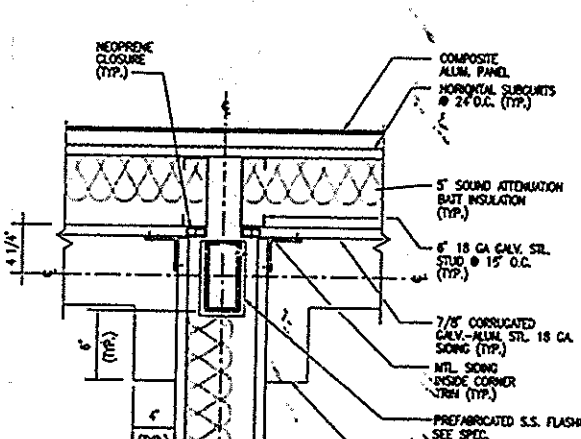
4 TYPICAL EXTERIOR WALL
3"x6" TUBE COLUMN DETAIL



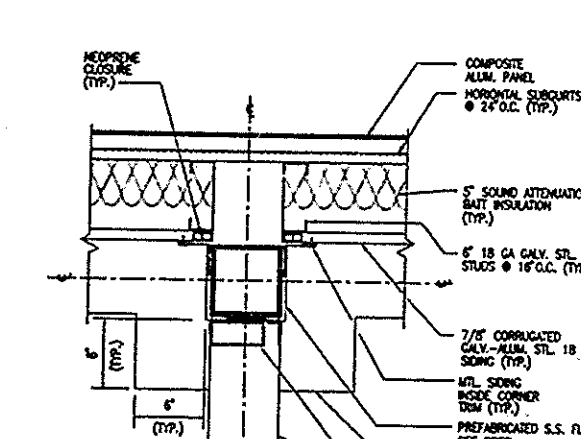
5 DETAIL



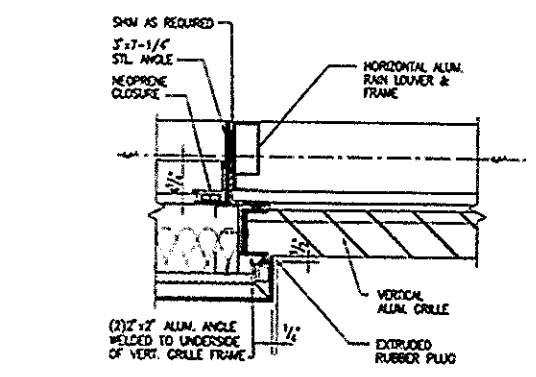
6 DETAIL



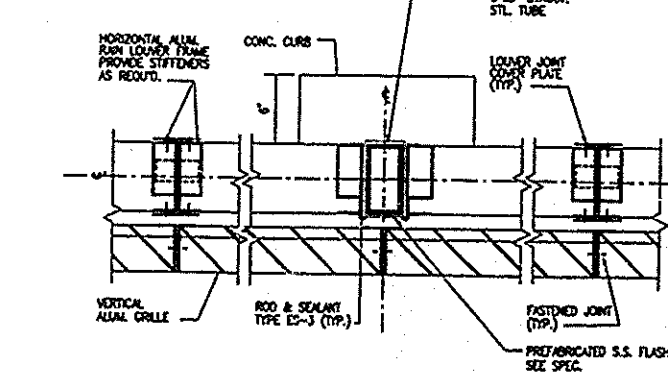
7 DETAIL



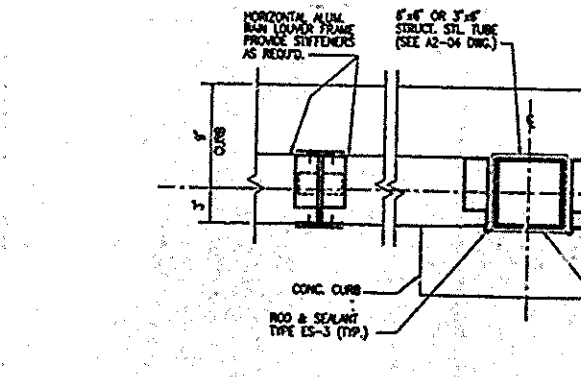
8 DETAIL



9 TYPICAL EXTERIOR COMPOSITE
ALUM. PANEL JAMB DETAIL @
VERTICAL GRILL/RAIN LOUVER



10 TYPICAL VERTICAL GRILLE & HORIZONTAL
RAIN LOUVER JAMB DETAIL



11 TYPICAL HORIZONTAL RAIN
LOUVER JAMB DETAIL